



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS–R4–ES–2013–0015; 4500030113]

RIN 1018-AZ47

### Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Leavenworthia exigua* var. *laciniata* (Kentucky Glade Cress)

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for *Leavenworthia exigua* var. *laciniata* (Kentucky glade cress) under the Endangered Species Act (Act). In total, approximately 2,053 acres (830 hectares) in Bullitt and Jefferson Counties, Kentucky, fall within the boundaries of the critical habitat designation.

**DATES:** This rule is effective on [**INSERT DATE 30 DAYS AFTER DATE OF  
FEDERAL REGISTER PUBLICATION**].

**ADDRESSES:** This final rule is available on the Internet at <http://www.regulations.gov>. Comments and materials we received, as well as some supporting documentation we used in preparing this rule, are available for public inspection at <http://www.regulations.gov>. All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Kentucky Ecological Services Field Office, J.C. Watts Federal Building, 330 W. Broadway Rm. 265, Frankfort, KY 40601; telephone 502–695–0468.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at <http://www.regulations.gov> at Docket No. FWS–R4–ES–2013–0015. Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service website and Field Office set out above, and at <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Lee Andrews, Field Supervisor, U.S. Fish and Wildlife Service, Kentucky Ecological Services Field Office, (see **ADDRESSES** above). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

**SUPPLEMENTARY INFORMATION:**

## Executive Summary

*Why we need to publish a rule.* Under the Endangered Species Act of 1973, as amended (Act), when we determine that a species is endangered or threatened we must designate critical habitat to the maximum extent prudent and determinable. Designations of critical habitat can only be completed by issuing a rule. Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for *Leavenworthia exigua* var. *laciniata*.

*This rule consists of:* A final rule for designation of critical habitat for *L. exigua* var. *laciniata*. We are designating approximately 2,053 acres (830 hectares) of critical habitat for *L. exigua* var. *laciniata* in Bullitt and Jefferson Counties, Kentucky. Elsewhere in today's **Federal Register**, we published a final rule listing *L. exigua* var. *laciniata* as a threatened species.

*We have prepared an economic analysis of the designation of critical habitat.* We prepared an analysis of the economic impacts of the critical habitat designation and related factors. We announced the availability of the draft economic analysis in the **Federal Register** on January 7, 2014 (79 FR 796), allowing the public to provide comments on our analysis. We have incorporated the comments and have completed a

final economic analysis concurrently with this final determination.

*Peer review and public comment.* We sought comments from seven independent specialists to review our technical assumptions and analysis, and whether or not we used the best information, to ensure that this designation of critical habitat is based on scientifically sound data and analyses. We obtained opinions from three of those individuals. These peer reviewers generally concurred with our methods and conclusions. We also considered all comments and information we received from the public during the comment period.

### **Previous Federal Actions**

Please refer to the proposed listing rule for *Leavenworthia exigua* var. *laciniata* (78 FR 31498; May 24, 2013) for a detailed description of previous Federal actions concerning this species. On May 24, 2013, we proposed critical habitat for *L. exigua* var. *laciniata* (78 FR 31479). On January 7, 2014 (79 FR 796), we announced the availability of the draft economic analysis (DEA) for the proposed critical habitat designation, and reopened the public comment period to allow comment on the DEA and further comment on the proposed rule.

### **Summary of Comments and Recommendations**

We requested written comments from the public on the proposed designation of critical habitat for *L. exigua* var. *laciniata* during two comment periods. The first comment period opened with the publication of the proposed rule (78 FR 31479) on May

24, 2013, and closed on July 23, 2013. We also requested comments on the proposed critical habitat designation and associated draft economic analysis during a comment period that opened January 7, 2014, and closed on February 6, 2014 (79 FR 796). We did not receive any requests for a public hearing. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties, and invited them to comment on the proposed rule and draft economic analysis during these comment periods.

During the first comment period, we received two comment letters directly addressing the proposed critical habitat designation. During the second comment period, we received no comment letters addressing the proposed critical habitat designation or the draft economic analysis. All substantive information provided during the comment periods has either been incorporated directly into this final determination or is addressed below.

#### *Peer Review*

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from seven knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from three of the peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive

issues and new information regarding critical habitat for *L. exigua* var. *laciniata*.

Although the peer reviewers were supportive of the proposed critical habitat designation, they did not provide any additional information, clarifications, or suggestions to improve this final critical habitat rule.

#### *Comments from States*

The Commonwealth of Kentucky did not submit comments on the proposed rule. We note, however, that one of the peer reviewers was from the Kentucky State Nature Preserves Commission (KSNPC).

#### *Public Comments*

During the public comment periods, we received two comment letters directly addressing the proposed critical habitat. These letters also addressed the proposed listing; comments pertaining to the listing are addressed in that final rule, published elsewhere in today's **Federal Register**. Both comment letters we received regarding the proposed critical habitat were positive and in support of the proposed designation.

(1) *Comment:* One commenter noted that proposed subunits 4D and 4E are found along Bardstown Road in an area of high traffic and increasing commercial development.

*Our Response:* We acknowledge that additional development in the area of subunits 4D and 4E has the potential to impact *L. exigua* var. *laciniata* and its habitat. Section 7 of the Act (16 U.S.C. 1531 *et seq.*) requires Federal agencies, in consultation

with the Service, to ensure that any action authorized, funded, or carried out by a Federal agency (thereby constituting a Federal nexus) is not likely to result in the destruction or adverse modification of critical habitat. If there is no Federal nexus for a given action, then critical habitat designation, including on private land, does not restrict any actions that destroy or adversely modify critical habitat. The Service will provide technical assistance to avoid and minimize impacts to *L. exigua* var. *laciniata*'s critical habitat if such assistance is requested.

(2) *Comment:* The Service should take into consideration the economic benefits of conserving the State's natural heritage.

*Our Response:* As required by Executive Order (E.O.) 12866 and section 4(b)(2) of the Act, the Service has completed an economic analysis on the effects of the critical habitat designation. The findings of this analysis were published in the **Federal Register** (79 FR 796; January 7, 2014). While the Service recognizes that there will be benefits associated with designating critical habitat for this species, we are unable to assess the magnitude of these benefits due to existing data limitations.

### **Summary of Changes from Proposed Rule**

Information we received during the comment periods did not result in any substantial changes to this final rule from what we proposed.

## **Critical Habitat**

### *Background*

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action



they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds,

seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources

of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation

tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

### *Physical or Biological Features*

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the specific physical or biological features essential for *L. exigua* var. *laciniata* from studies of this species' habitat, ecology, and life history as described in the **Critical Habitat** section of the proposed rule to designate critical habitat published in the

**Federal Register** on May 24, 2013 (78 FR 31479), and in the information presented below. Additional information can be found in the final listing rule published elsewhere in today's **Federal Register**. We have determined that the following physical and biological features are essential for *L. exigua* var. *laciniata*.

*Space for Individual and Population Growth and for Normal Behavior*

*Leavenworthia exigua* var. *laciniata* is typically found in cedar or limestone glades (Baskin and Baskin 1981, p. 243), which are described by Baskin and Baskin (1999, p. 206) as “open areas of rock pavement, gravel, flagstone, and/or shallow soil in which occur natural, long-persisting (edaphic climax) plant communities dominated by angiosperms and/or cryptogams.” *L. exigua* var. *laciniata* is also known from gladelike areas such as overgrazed pastures, eroded shallow soil areas with exposed bedrock, and areas where the soil has been scraped off the underlying bedrock (Evans and Hannan 1990, p. 8). These disturbed areas are gladelike in the shallowness or near-absence of their soils, saturation, and/or inundation during the wet periods of late fall, winter, and early spring and then frequently dry below the permanent wilting point during the summer (Baskin and Baskin 2003, p. 101). These conditions likely prevent species that would shade or compete with *L. exigua* var. *laciniata* from establishing in these areas.

While the individual rock exposure or outcrop areas will vary in size and may be small and scattered throughout the glade(s) or gladelike area(s), they will ideally occur in groups to comprise a glade (or gladelike) complex. Habitat destruction, modification, and fragmentation within the narrow range of *L. exigua* var. *laciniata* make it difficult to

determine the optimal size or density of glade habitats needed to support the long-term survival of the species. Pine Creek Barrens Preserve (owned by The Nature Conservancy) contains the only remaining A-ranked population of *L. exigua* var. *laciniata*, described as having thousands of plants scattered over 25 to 30 acres. Similarly, the B-ranked Rocky Run was described in 1990 as containing thousands of plants scattered over 2 miles. Many of the poor (D) ranked populations occur within areas as small as a few square meters (KSNPC 2012, pp. 1–108). While the long-term viability of these populations is considered poor, monitoring efforts have shown that for the short term, some *L. exigua* var. *laciniata* populations are able to persist (i.e., grow and reproduce) on these small and fragmented sites.

Based on the information above, we identify cedar glades and gladelike areas underlain by Silurian dolomite or dolomitic limestone as an essential physical or biological feature for the species.

#### *Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements*

The specific water needs of *L. exigua* var. *laciniata* are unknown; however, the sites it occupies are extremely wet from late winter to early spring and quickly become dry in late May and June. This hydrologic regime is critical for the plant's survival in that it provides sufficient moisture for the taxon's life cycle (germination in fall, plant growth from fall to early spring, and seed production in the spring). Additionally, the droughty conditions during the typical growing season prevent the establishment of plants that could shade or dominate *L. exigua* var. *laciniata*.

*L. exigua* var. *laciniata* is shade intolerant. Open glade habitats appear to provide the most favorable conditions for this species (Evans and Hannan 1990, p. 14). Baskin and Baskin (1988, p. 834) noted that most endemics occurring on rock outcrops (such as *L. exigua* var. *laciniata*) are restricted to the open and well-lighted areas of the outcrops as opposed to similar but more shaded areas near the surrounding forest.

*L. exigua* var. *laciniata* seems more dependent upon the lack of soil and the proximity of rock near or at the surface rather than a specific type of soil (Evans and Hannan 1990, p. 8). It occurs primarily in open, gravelly soils around rock outcrops in an area of the Caneyville–Crider soil association (Whitaker and Waters 1986, p. 16). Baskin and Baskin (1981, p. 245) identified shallow soils (1 to 5 centimeters (cm)) (0.39 to 1.97 inches (in)) over limestone or dolomite to be characteristic habitat of *L. exigua* var. *laciniata*.

Based on this information, we identify unshaded and shallow soils that are extremely wet from late winter to early spring and quickly become dry in late May and June to be an essential physical or biological feature for this species.

*Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring,  
Germination, or Seed Dispersal*

Like all annuals, *L. exigua* var. *laciniata* reproduces sexually through seed production. Successful reproduction of *L. exigua* var. *laciniata* requires sufficient

moisture for germination, growth, flowering, and seed production. Pollination of *L. exigua* var. *laciniata* can be by insects or self-pollination (Rollins 1963, p. 47). Seeds may fall to the ground, be transported by animals, or be carried by precipitation sheet flow to new sites.

The seeds of *L. exigua* var. *laciniata* germinate in the fall, with plants surviving through the winter as rosettes that flower in early spring. Seeds are typically dispersed from mid-May to late May (Evans and Hannan 1990, p. 11). After the seeds ripen, the silique (pod) soon splits open. Seeds may immediately fall out or remain on the plant for several days. The extent to which this plant can expand to new sites is unknown.

Lloyd (1965, p. 92) noted that seeds from *Leavenworthia* lack adaptations that would allow for dispersal by wind or animals. Sheet flow likely provides local dispersion for seeds lying on the ground (Lloyd 1965, pp. 92–93; Evans and Hannan 1990, p. 11). In reviewing aerial photography and topographic mapping of known *L. exigua* var. *laciniata* occurrences, it appears that populations often follow suitable habitat as it extends along topographic contours or within drainage patterns. Areas of bare ground are essential in the dispersal and germination of seeds. The cyclical moisture availability on the thin soils of glades and other habitats acts to limit the number of plant species that can tolerate these extremes (Evans and Hannan 1990, pp. 9–10).

*L. exigua* var. *laciniata* seeds have been shown to retain viability for at least 3 years under greenhouse conditions (Baskin and Baskin 1981, p. 247). A strong seed bank



is expected to be important for the continued existence of *L. exigua* var. *laciniata*, especially following a year when conditions are unfavorable for reproduction (e.g., damage (natural or manmade) to plants prior to seed set). Accordingly, *L. exigua* var. *laciniata* habitat must be protected from activities that would damage or destroy the seed bank.

Based on the information above, we identify glade and gladelike habitats with intact hydrology and an undisturbed seed bank to be a physical or biological feature essential to the conservation of *L. exigua* var. *laciniata*. These areas are critical for seed dispersal and germination.

*Habitats Protected from Disturbance or Representative of the Historical, Geographical, and Ecological Distribution of the Species*

Disturbance in the form of development (and associated infrastructure) is a major factor in the loss and degradation of habitat for *L. exigua* var. *laciniata*. Development can directly eliminate or fragment essential habitat and indirectly cause changes to the habitat (e.g., through erosion, shading, introduction of invasive plants—all of which may cause declines in distribution or in numbers of plants per occurrence). Protected habitats are, therefore, of crucial importance for the growth and dispersal of *L. exigua* var. *laciniata*. These areas are critical to protecting *L. exigua* var. *laciniata* populations and habitat from impacts such as sedimentation, erosion, and competition from nonnative or invasive plants.

The natural areas supporting *L. exigua* var. *laciniata* are cedar or limestone glades, which Baskin and Baskin (2003, p. 101) describe as flat to gently sloping, open areas of shallow soils and/or calcareous rock (pavement, gravel, flagstone) that support an edaphic climax plant community dominated by non-woody species. These areas are often associated with eastern red-cedar thickets (Jones 2005, p. 33) and/or scrubby red-cedar-hardwood forests (Baskin and Baskin 1999, p. 102). These associated areas and other, adjacent, undeveloped ground provide important buffer protection from disturbance.

*Leavenworthia* species have a patchy distribution within the exposed rock outcrops and shallow soil areas of cedar glade habitats and gladelike areas (Lloyd 1965, p. 87). *L. exigua* var. *laciniata* is an endemic species restricted to a very specific habitat type with a patchy distribution across the landscape separated by large areas of habitat unsuitable for *L. exigua* var. *laciniata*. Although these cedar glades also contain areas of deeper soil where other, associated vegetation grows, these areas of deeper soil are essential components of the glade and critical for maintaining habitat suitable for occupation by *L. exigua* var. *laciniata*.

Based on a review of aerial imagery, habitat areas that appear to provide sufficient protection generally have the hillside (creek to topographic break) and adjacent contour surrounding the glade areas in vegetated (primarily wooded) habitat. Buffer areas of this magnitude protect *L. exigua* var. *laciniata* populations and habitat from adjacent development and habitat change. Although these areas are not directly occupied by *L.*

*exigua* var. *laciniata*, they are essential to the growth and dispersal of the species within areas of suitable habitat.

Therefore, based on the information above, we identify vegetated areas surrounding glades and gladelike habitats that protect the hydrology, soils, and seed bank to be a physical or biological feature for this species.

*Primary Constituent Elements for L. exigua* var. *laciniata*

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *L. exigua* var. *laciniata* in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to *L. exigua* var. *laciniata* are:

- (1) Cedar glades and gladelike areas within the range of *L. exigua* var. *laciniata* that include:
  - (a) Areas of rock outcrop, gravel, flagstone of Silurian dolomite or dolomitic limestone, and/or shallow (1 to 5 cm (0.393 to 1.97 in)), calcareous

soils;

(b) Intact cyclic hydrologic regime involving saturation and/or inundation of the area in winter and early spring, then drying quickly in the summer;

(c) Full or nearly full sunlight; and

(d) An undisturbed seed bank.

(2) Vegetated land around glades and gladelike areas that extends up and down slope and ends at natural (e.g., stream, topographic contours) or manmade breaks (e.g., roads).

#### *Special Management Considerations or Protection*

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

Threats to those features that define primary constituent elements for *L. exigua* var. *laciniata* include (but are not limited to): (1) Residential and commercial development on private land; (2) construction and maintenance of roads and utility lines; (3) incompatible agricultural or grazing practices; (4) off-road vehicle (ORV) use or horseback riding; (5) encroachment by nonnative plants or forage species; and (6) forest encroachment due to fire suppression. These threats are in addition to random effects of

droughts, floods, or other natural phenomena.

Special management considerations or protection are required within critical habitat areas to address these threats. Management activities that could address these threats include (but are not limited to): (1) Avoiding cedar glades (or suitable gladelike habitats) when planning the location of buildings, lawns, roads (including horse or ORV trails), or utilities; (2) avoiding aboveground construction and/or excavations in locations that would interfere with natural water movement to suitable habitat sites; (3) protecting and restoring as many glade complexes as possible; (4) research supporting the development of management recommendations for grazing and other agricultural practices; (5) technical or financial assistance to landowners that may help in the design and implementation of management actions that protect the plant and its habitat; (6) avoiding lawn grass or tree plantings near glades; and (7) habitat management, such as brush removal, prescribed fire, and/or eradication of lawn grasses to maintain an intact native glade vegetation community.

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b) we review available information pertaining to the habitat requirements of the species and identify areas occupied at the time of listing that contain the features essential to the conservation of the species. If, after identifying currently occupied areas, we determine that those areas are inadequate to ensure conservation of

the species we then consider, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e), whether designating additional areas outside those currently occupied is essential for the conservation of the species. Here, we are not designating any areas outside the geographical area occupied by the species because we have determined that occupied areas are sufficient for the conservation of the species, and we have no evidence that this taxon ever existed beyond its current range.

Sites were considered occupied if the Kentucky State Nature Preserves Commission (KSNPC) Element Occurrence Report (KSNPC 2012, pp. 1–108) considered an element occurrence to be an extant population at the time of the proposed listing rule (May 24, 2013).

We also reviewed available information that pertains to habitat requirements of *Leavenworthia exigua* var. *laciniata*. The sources of information include, but are not limited to:

1. Data used to prepare the proposed listing package;
2. Peer-reviewed articles, various agency reports, and the KSNPC Natural Heritage Program database;
3. Information from species experts; and
4. Regional Geographic Information System (GIS) data (such as species occurrence data, topography, aerial imagery, and land ownership maps) for area calculations and mapping.

Areas for critical habitat designation were selected based on the quality of the element occurrence(s), condition of the habitat, and distribution within the species' range. Typically, selected areas contain good quality or better occurrences (A, B, or C-ranked) and natural habitat, as identified by KSNPC in the Natural Heritage Report (2012, pp. 1–108). However, some lower quality occurrences, with restoration potential, are included to ensure that critical habitat is being designated across the species' range and to avoid a potential reduction of the distribution of *L. exigua* var. *laciniata*. The glade habitat upon which the species depends is often easily viewed using aerial photography. Additionally, aerial photography provides an overview of the land use surrounding the glades. Topographic maps provide contours and drainage patterns that were used to help identify potential areas for growth and expansion of the species. A combination of these tools, in a GIS interface, allowed for the determination of the critical habitat boundaries.

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for *L. exigua* var. *laciniata*. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical

habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the **Regulation Promulgation** section. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on <http://www.regulations.gov> at Docket No. FWS-R4-ES-2013-0015, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**).

#### **Final Critical Habitat Designation**

We are designating six units, consisting of 18 subunits, as critical habitat for *L. exigua* var. *laciniata*. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat. Those six units are: (1) Unit 1: McNeely Lake, (2) Unit 2: Old Mans Run, (3) Unit 3: Mount Washington, (4) Unit 4: Cedar Creek, (5) Unit 5: Cox Creek, and (6) Unit 6: Rocky Run. All units and subunits are currently occupied by the species and contain all physical and biological features and primary constituent elements that are essential to the conservation of the species.

*Table 1.* Designated critical habitat units for *L. exigua* var. *laciniata*.

[Area estimates reflect all land within critical habitat unit boundaries.]

Critical	Sub	Land Ownership by Type	Size of Unit in Acres
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<b>Habitat Unit</b>	<b>Unit</b>		<b>(Hectares)</b>
1		Louisville/Jefferson County Metro Government	18 (7)
2	2A	Private	102 (41)
2	2B	Private	870 (352)
2	2C	Private	42 (17)
3	3A	Private	25 (10)
3	3B	Private	7 (3)
3	3C	Private	10 (4)
4	4A	Private	91 (37)
4	4B	KSNPC; Private; Private with KSNPC easement	69 (28)
4	4C	Private	83 (34)
4	4D	Private	46 (19)
4	4E	Private	102 (41)
4	4F	Private	120 (49)
4	4G	Private	20 (8)
4	4H	Private	16 (6)
5	5A	Private	8 (3)
5	5B	Private	50 (20)
6		Private	374 (151)
Total			2,053 (830)

Note: Area sizes may not sum due to rounding.

*Unit 1: McNeely Lake, Jefferson County, Kentucky*

Unit 1 consists of 18 acres (ac) (7 hectares (ha)) within McNeely Lake Park in Jefferson County, Kentucky. This critical habitat unit is under county government ownership. This critical habitat unit occurs at the northwestern edge of the species' range, where there is little remaining habitat and few occurrences, and therefore this unit is important to the distribution of the species. Habitat degradation (e.g., erosion, invasive species) is impacting the species' ability to persist within this unit; however, the landowner has received funding and is working with the Service and KSNPC to develop a management plan for the site and to implement habitat improvement practices. These planned activities are expected to improve population numbers and viability at this important site. This unit helps to maintain the geographical range of the species and provides opportunity for population growth. Within Unit 1, the features essential to the conservation of the species may require special management considerations or protection to address potential adverse effects associated with encroachment by nonnative plants or forage species, and forest encroachment due to fire suppression.

*Unit 2, Subunits A, B, and C: Old Mans Run, Jefferson and Bullitt Counties, Kentucky*

Unit 2 consists of three subunits totaling 1,014 ac (410 ha) in Bullitt and Jefferson Counties, Kentucky. It is located just south of the Jefferson/Bullitt County line and extends north of Old Mans Run. This critical habitat unit includes four element occurrences. Subunit 2B represents the best remaining populations and habitat for *L. exigua* var. *laciniata* in Jefferson County. Subunits 2A and 2C are important areas at the

northern extent of the species' range. These three subunits represent the northeastern extent of the population's range and increase population redundancy within the species' range. The features essential to the conservation of the species in Unit 2 may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment.

Subunit 2A is 102 ac (41 ha) in size and is located west of US 150 and northwest of Floyds Fork. It is in private ownership. While all PCEs are present within this subunit, it contains few native plant associates for *L. exigua* var. *laciniata*, and the increased competition from lawn grasses may decrease the ability of *L. exigua* var. *laciniata* to persist. This subunit is important for maintaining the northern distribution of *L. exigua* var. *laciniata*.

Subunit 2B is 870 ac (352 ha) in size and is located east of US 150 and extends north and south of Old Mans Run. It is in private ownership. This is the largest of the subunits and contains the two highest ranked (1-B and 1-C) occurrences in Jefferson County. It represents the best remaining habitat in this portion of the range and may contain more than half of the total *L. exigua* var. *laciniata* population based on a 2011 survey by KSNPC, which estimated more than 20,000 individuals at 4 sites within this subunit. In this subunit, competition from lawn grasses impacts *L. exigua* var. *laciniata* and may decrease the plant's ability to persist.

Subunit 2C is 42 ac (17 ha) in size and is located west of US 150 and east of Floyds Fork, extending into both Bullitt and Jefferson Counties. It is in private ownership. This subunit is primarily pasture, and habitat for *L. exigua* var. *laciniata* is impacted by competition from lawn grasses. Habitat management within this subunit to improve habitat for *L. exigua* var. *laciniata* is important for maintaining the northern distribution of the species.

*Unit 3, Subunits A, B and C: Mount Washington, Bullitt County, Kentucky*

Unit 3 consists of 42 ac (17 ha) and includes three subunits in Bullitt County, Kentucky, primarily within or adjacent to the city limits of Mount Washington. This critical habitat unit includes three element occurrences and provides an important link between the northern and southern portions of the species' range. Within Unit 3, the features essential to the conservation of the species may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 3A is 25 ac (10 ha) in size and is located northeast of Mount Washington. It is in private ownership. Habitat for *L. exigua* var. *laciniata* within this subunit is degraded and would improve with management. It represents important habitat on the eastern extent of the species' range. In this subunit, habitat conversion and ORV use

impact *L. exigua* var. *laciniata* habitat and may decrease the species' ability to persist at this site.

Subunit 3B is 7 ac (3 ha) in size and is located east of Hubbard Lane and south of Keeneland Drive. It is in private ownership. The glade habitat has been degraded by adjacent land use and would benefit from improved management. The subunit represents an important link between other subunits.

Subunit 3C is 10 ac (4 ha) in size and is located east of US 150 and south of Highway 44E. It is in private ownership. The subunit represents an important and high quality cedar glade in an area of ongoing, intensive development. Land use surrounding the glade remnant appears stable and the glade contains several native plant species associated with *L. exigua* var. *laciniata*.

*Unit 4, Subunits A, B, C, D, E, F, G, and H: Cedar Creek, Bullitt County, Kentucky*

Unit 4 consists of 547 ac (221 ha) and includes eight subunits, all in Bullitt County, Kentucky. This unit is located south of the Salt River and northeast of Cedar Grove and seems to represent the core of the remaining high-quality habitat for *L. exigua* var. *laciniata*. It includes eight element occurrences. In addition to being a stronghold for the species, these subunits are generally within close proximity (less than 0.5 miles (0.8 km)) to each other and represent the best opportunity for genetic exchange between occurrences.

Within Unit 4, the features essential to the conservation of the species may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 4A is 91 ac (37 ha) in size and is located south of Cedar Creek and west of Pine Creek Trail. This subunit is owned by The Nature Conservancy and encompasses most of the Pine Creek Barrens Preserve. This excellent-quality glade represents the only remaining “A” rank occurrence for *L. exigua* var. *laciniata*.

Subunit 4B is 69 ac (28 ha) in size and is located along an unnamed tributary to Cedar Creek, and south of KY 1442. This good-quality glade includes the Apple Valley Glade State Nature Preserve, owned by KSNPC (approximately 30 percent of subunit), as well as private land, including some under permanent conservation easement (approximately 41 percent of subunit) to protect *L. exigua* var. *laciniata*. Approximately 29 percent of this subunit is under private ownership without any protections for *L. exigua* var. *laciniata*.

Subunit 4C is 83 ac (34 ha) in size and located north of Cedar Creek and south of Apple Valley State Nature Preserve. It is in private ownership. This subunit contains high-quality glades with a community of native plants present.

Subunit 4D is 46 ac (19 ha) in size and is located north of Cedar Creek and south of Victory Church. It is in private ownership. This subunit has been degraded and would benefit from improved management. Native plants associated with *L. exigua* var. *laciniata* occur within this subunit, but competition from lawn grasses, as well as forest encroachment due to fire suppression, impacts *L. exigua* var. *laciniata* and may decrease its ability to persist.

Subunit 4E is 102 ac (41 ha) in size and is located southeast of subunit 4D and across Cedar Creek. It is in private ownership. It contains a large number of *L. exigua* var. *laciniata* (several thousand), but the habitat has been degraded by adjacent land use and would benefit from improved management. Competition from lawn grasses, as well as forest encroachment due to fire suppression, affects *L. exigua* var. *laciniata* and may decrease the plant's ability to persist.

Subunit 4F is 120 ac (49 ha) in size and is south of the confluence of Cedar Creek and Greens Branch. It is in private ownership. This is a degraded glade that still contains native plants associated with *L. exigua* var. *laciniata*. The subunit is disturbed by existing and surrounding land uses, as well as utility line maintenance and ORV use, which may decrease the species' ability to persist.

Subunit 4G is 20 ac (8 ha) in size and is located along either side of KY 480 near White Run Road. It is in private ownership. This site contains a large number of plants; however, improved habitat conditions are needed for long-term viability of the *L. exigua*

var. *laciniata* occurrence. Impacts to *L. exigua* var. *laciniata*, which may decrease its ability to persist at this site, include incompatible agricultural or grazing practices, ORV use, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 4H is 16 ac (6 ha) in size and is located 0.95 miles southeast of the KY 480/KY 1604 intersection. It is in private ownership. Within this subunit, several patches of good habitat for *L. exigua* var. *laciniata* remain as well as a good diversity of native plant associates. However, competition from lawn grasses, as well as forest encroachment due to fire suppression, affects *L. exigua* var. *laciniata* and may decrease its ability to persist.

*Unit 5, Subunits A and B: Cox Creek, Bullitt County, Kentucky*

Unit 5 consists of 58 ac (23 ha) and includes two subunits, both in Bullitt County, Kentucky. It includes two element occurrences, representing the most easterly occurrences south of the Salt River. These subunits are important for maintaining the distribution and genetic diversity of the species.

Within Unit 5, the features essential to the conservation of the species may require special management considerations or protection to address potential adverse effects associated with illegal waste dumps, development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.



Subunit 5A is 8 ac (3 ha) in size and is located east of Cox Creek and west of KY 1442. It is in private ownership. This site is threatened by ORV use and would benefit from improved habitat management.

Subunit 5B is 50 ac (20 ha) in size and is located west of Cox Creek near the Bullitt/Spencer County line. It is in private ownership. Incompatible agricultural practices and ORV use impacts *L. exigua* var. *laciniata* and may decrease its ability to persist. The native flora is mostly intact, and *L. exigua* var. *laciniata* would benefit from improved habitat management.

*Unit 6: Rocky Run, Bullitt County, Kentucky*

Unit 6 consists of 374 ac (151 ha) in Bullitt County, Kentucky. This critical habitat unit includes habitat that is under private ownership, including one 16-acre registered natural area. It includes one element occurrence. This unit appears to represent the largest intact glade habitat remaining within the range of the species. Within Unit 6, the features essential to the conservation of the species may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, competition from lawn grasses, and forest encroachment due to fire suppression.

## Effects of Critical Habitat Designation

### *Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5<sup>th</sup> and 9<sup>th</sup> Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9<sup>th</sup> Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service*, 245 F.3d 434 (5<sup>th</sup> Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions

that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the

action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

### *Application of the “Adverse Modification” Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for *L. exigua* var. *laciniata*. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *L. exigua* var. *laciniata*. These activities include, but are not limited to:

(1) Actions within or near critical habitat that would result in the loss of bare or open ground. Such activities could include, but are not limited to: Development; road maintenance, widening, or construction; and utility line construction or maintenance. These activities could eliminate or reduce the habitat necessary for

growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

(2) Actions within or near critical habitat that would modify the hydrologic regime that allows for the shallow soils to be very wet in late winter to early spring and dry quickly. Such activities could include, but are not limited to: Development; road maintenance, widening, or construction; and utility line construction or maintenance. These activities could alter habitat conditions to the point of eliminating the site conditions required for growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

(3) Actions within or near critical habitat that would remove or alter vegetation and allow erosion, sedimentation, shading, or the introduction or expansion of invasive species. Such activities could include, but are not limited to: Land clearing; silviculture; fertilizer, herbicide, or insecticide applications; development; road maintenance, widening, or construction; and utility line construction or maintenance. These activities could alter habitat conditions to the point of eliminating the site conditions required for growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

## **Exemptions**

### *Application of Section 4(a)(3) of the Act*

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under

section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.” There are no Department of Defense lands with a completed INRMP within the critical habitat designation.

### **Consideration of Impacts under Section 4(b)(2) of the Act**

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

### **Consideration of Economic Impacts**

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which together with our narrative and interpretation of effects we consider our draft economic analysis (DEA)

of the proposed critical habitat designation and related factors (IEc 2013). The analysis was made available for public review from January 7, 2014, through February 6, 2014 (79 FR 796). The DEA addressed potential economic impacts of critical habitat designation for *L. exigua* var. *laciniata*. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic impacts of critical habitat designation for *L. exigua* var. *laciniata* is summarized below and available in the screening analysis for *L. exigua* var. *laciniata* (IEc 2013), available at <http://www.regulations.gov>.

The screening analysis addresses how probable economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. Decision-makers can use this information to evaluate whether the effects of the designation might unduly burden a particular group, area, or economic sector. The screening analysis assesses the economic impacts of *L. exigua* var. *laciniata* conservation efforts associated with the following categories of activity: Residential and commercial development; transportation projects; recreational activities; agricultural activities; utility projects; and commercial timber harvest.

In general, because *L. exigua* var. *laciniata* is a narrow endemic species, and all of the critical habitat units are occupied by the species, the quality of its habitat is closely



linked to the species' survival (USFWS 2013). Consequently, the Service believes that in most circumstances, there will be no conservation efforts needed to prevent adverse modification of critical habitat beyond those that would be required to prevent jeopardy to the species. Any anticipated incremental costs of the critical habitat designation costs will predominantly be administrative in nature and would not be significant. Critical habitat may impact property values indirectly if developers assume the designation will limit the potential use of that land. However, the designation of critical habitat is not likely to result in an increase of consultations, but rather only the additional administrative effort within each consultation to address the effects of each proposed agency action on critical habitat.

#### *Exclusions Based on Economic Impacts*

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for *L. exigua* var. *laciniata* based on economic impacts.

A copy of the IEM and screening analysis with supporting documents may be obtained by contacting the Kentucky Ecological Services Field Office (see **ADDRESSES**) or by downloading from the Internet at <http://www.regulations.gov>.

#### *Exclusions Based on National Security Impacts or Homeland Security Impacts*

Under section 4(b)(2) of the Act, we consider whether there are lands owned or

managed by the Department of Defense where a national security impact might exist. In preparing this final rule, we have determined that no lands within the designation of critical habitat for *L. exigua* var. *laciniata* are owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact to national security or homeland security. Consequently, the Secretary is not exercising her discretion to exclude any areas from this final designation based on impacts to national security or homeland security.

#### *Exclusions Based on Other Relevant Impacts*

Under section 4(b)(2) of the Act, we also consider any other relevant impacts resulting from the designation of critical habitat. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no permitted HCPs or other approved management plans for *L. exigua* var. *laciniata*, and the final designation does not include any tribal lands or trust resources. We anticipate no impact on partnerships or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation

based on other relevant impacts.

## **Required Determinations**

### *Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

### *Regulatory Flexibility Act (5 U.S.C. 601 et seq.)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any

proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7 only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities, and

a regulatory flexibility analysis is not required.

*Energy Supply, Distribution, or Use—Executive Order 13211*

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute “a significant adverse effect” when compared to not taking the regulatory action under consideration.

The DEA finds that none of these criteria is relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with *L. exigua* var. *laciniata* conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

*Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty

upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify

critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. The final economic analysis concludes incremental impacts may occur due to administrative costs of section 7 consultations for activities related to commercial, residential, and recreational development and associated actions; however, these are not expected to significantly affect small government entities. Consequently, a Small Government Agency Plan is not required.

#### *Takings—Executive Order 12630*

In accordance with Executive Order 12630 (“Government Actions and



Interference with Constitutionally Protected Private Property Rights’), we have analyzed the potential takings implications of designating critical habitat for *L. exigua* var. *laciniata* in a takings implications assessment. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding, assistance, or require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. The DEA found that no significant economic impacts are likely to result from the designation of critical habitat for *L. exigua* var. *laciniata*. Because the Act’s critical habitat protection requirements apply only to Federal agency actions, few conflicts between critical habitat and private property rights should result from this designation. Based on the best available information, the takings implications assessment concludes that this designation of critical habitat for *L. exigua* var. *laciniata* does not pose significant takings implications.

#### *Federalism—Executive Order 13132*

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies in Kentucky. We received comments from the Kentucky State Nature Preserves Commission and have addressed them in the **Summary of Comments and Recommendations** section of the rule. From a federalism

perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

*Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of *L. exigua* var. *laciniata*. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

*Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act (42 U.S.C. 4321 et seq.)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to NEPA in connection with designating critical habitat under the Act. We published a notice

outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

#### *Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. As stated above, we are not designating critical habitat for *L. exigua* var. *laciniata* on tribal lands.

#### **References Cited**

A complete list of all references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Kentucky Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

## **Authors**

The primary authors of this rulemaking are the staff members of the Kentucky Ecological Services Field Office.

## **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

## **Regulation Promulgation**

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

## **PART 17—[AMENDED]**

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

2. In § 17.96, amend paragraph (a) by adding an entry for “*Leavenworthia exigua* var. *laciniata* (Kentucky glade cress)” in alphabetical order under the family Brassicaceae, to read as follows:

### **§ 17.96 Critical habitat—plants.**

(a) *Flowering plants.*

\* \* \* \* \*

Family Brassicaceae: *Leavenworthia exigua* var. *lacinata* (Kentucky glade cress)

(1) Critical habitat units are depicted for Bullitt and Jefferson Counties, Kentucky, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *L. exigua* var. *laciniata* consist of these components:

(i) Cedar glades and gladelike areas within the range of *L. exigua* var. *laciniata* that include:

(A) Areas of rock outcrop, gravel, flagstone of Silurian dolomite or dolomitic limestone, and/or shallow (1 to 5 centimeters (0.393 to 1.97 inches)), calcareous soils;

(B) Intact cyclic hydrologic regime involving saturation and/or inundation of the area in winter and early spring, then drying quickly in the summer;

(C) Full or nearly full sunlight; and

(D) An undisturbed seed bank.

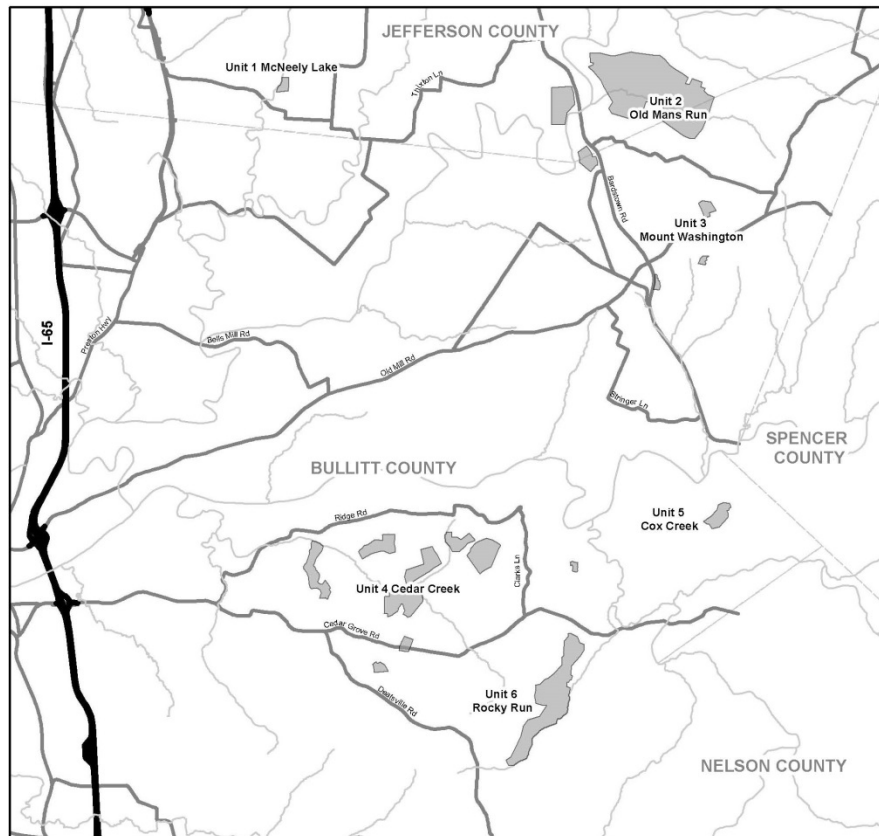
(ii) Vegetated land around glades and gladelike areas that extends up and down slope and ends at natural (e.g., stream, topographic contours) or manmade breaks (e.g., roads).

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [**INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION**].

(4) *Critical habitat map units.* Data layers defining critical habitat map units were created using a base of aerial photographs (USDA National Agricultural Imagery Program; NAIP 2010), and USA Topo Maps (National Geographic Society 2011). Critical habitat units were then mapped using Universal Transverse Mercator (UTM) Zone 16 North American Datum (NAD) 1983 coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's internet site, at <http://www.regulations.gov> at Docket No. FWS-R4-ES-2013-0015, and at the field office responsible for this designation. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Index map follows:

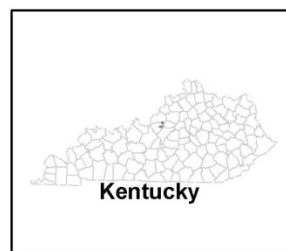
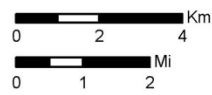
Index Map  
Critical Habitat for *Leavenworthia exigua* var. *laciniata* (Kentucky gladegrass),  
Jefferson and Bullitt Counties, Kentucky



Legend

- Proposed Critical Habitat
- Streams
- Interstate Highways
- US and State Highways
- County boundary

N

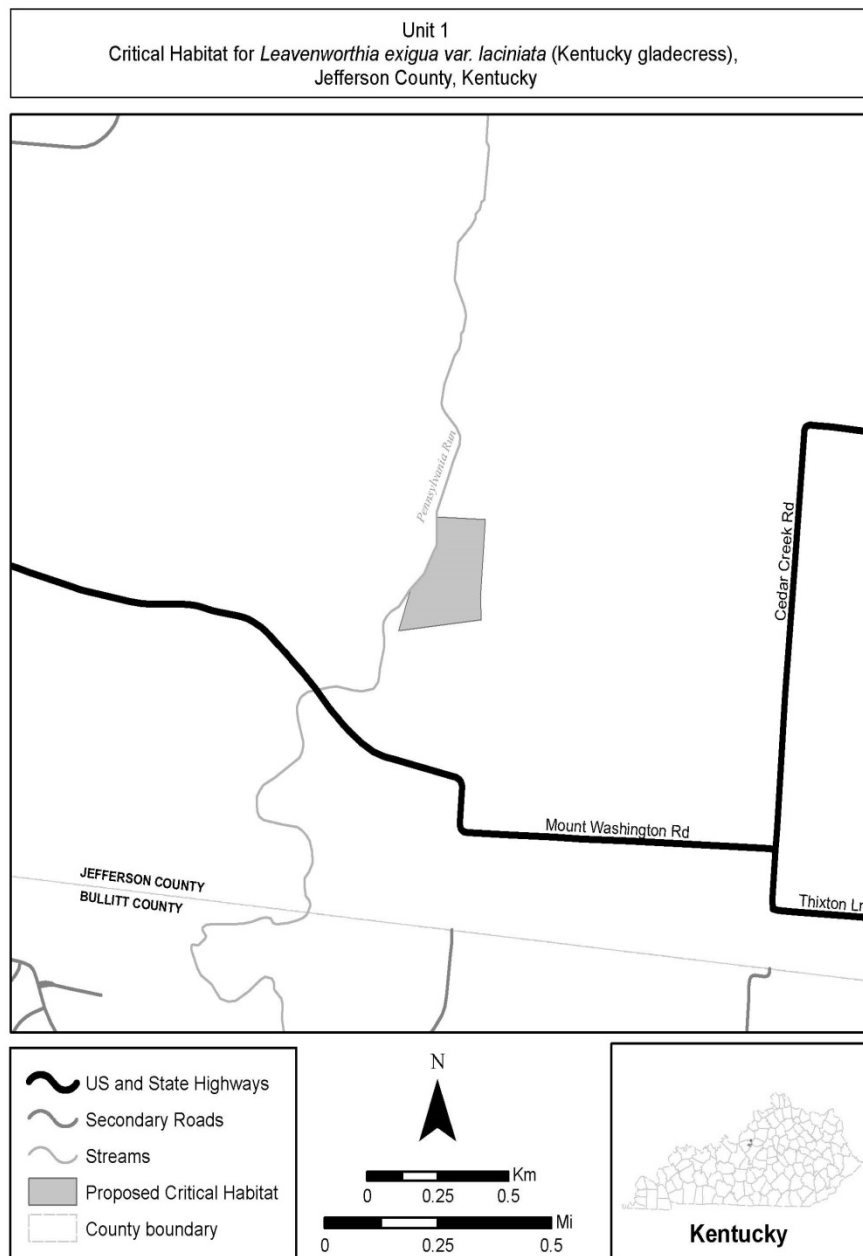




(6) Unit 1: McNeely Lake, Jefferson County, Kentucky.

(i) Unit 1 includes 18 ac (7 ha).

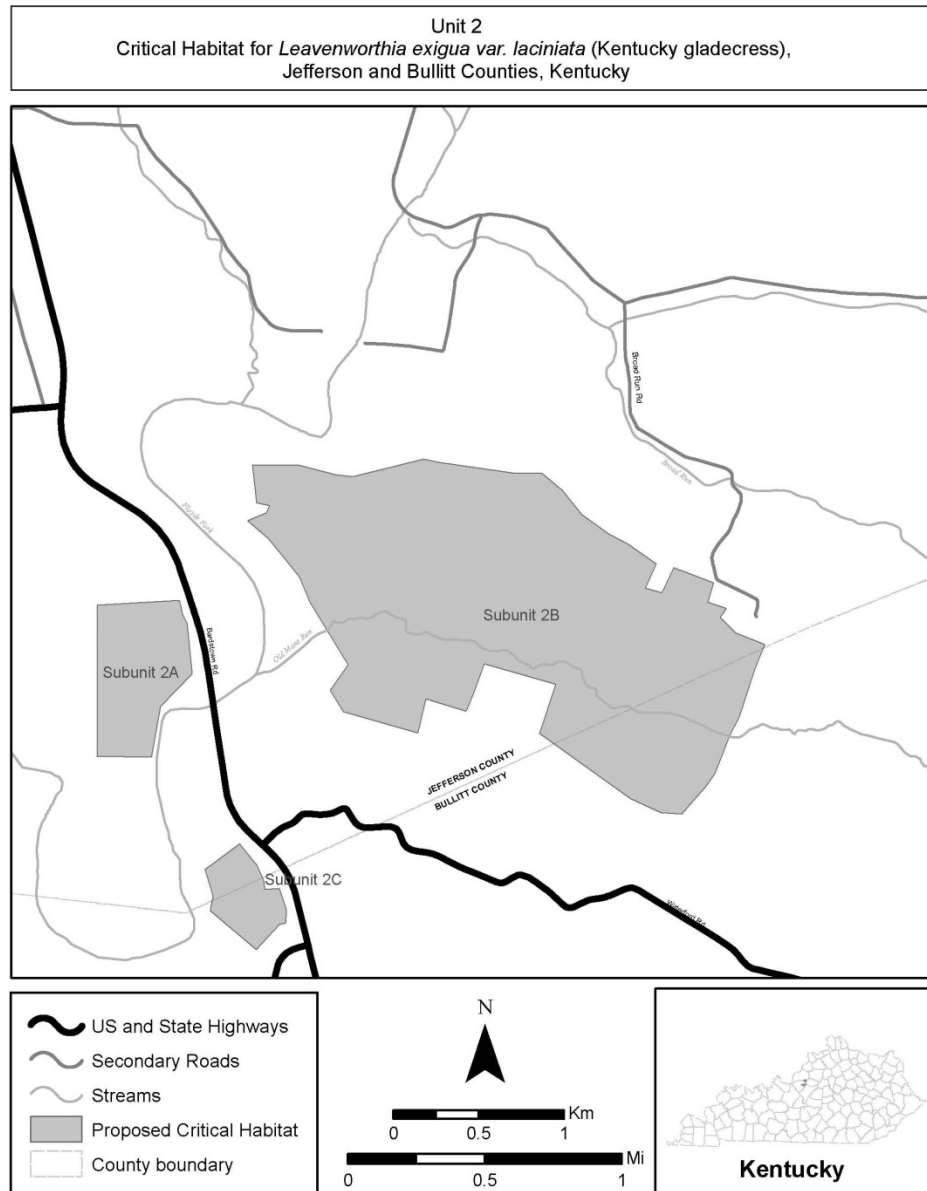
(ii) Map of Unit 1 follows:



(7) Unit 2: Old Mans Run, Bullitt and Jefferson Counties, Kentucky.

(i) Unit 2 includes 1,014 ac (410 ha): Subunit A includes 102 acres (41 ha); subunit B includes 870 acres (352 ha); and subunit C includes 42 ac (17 ha).

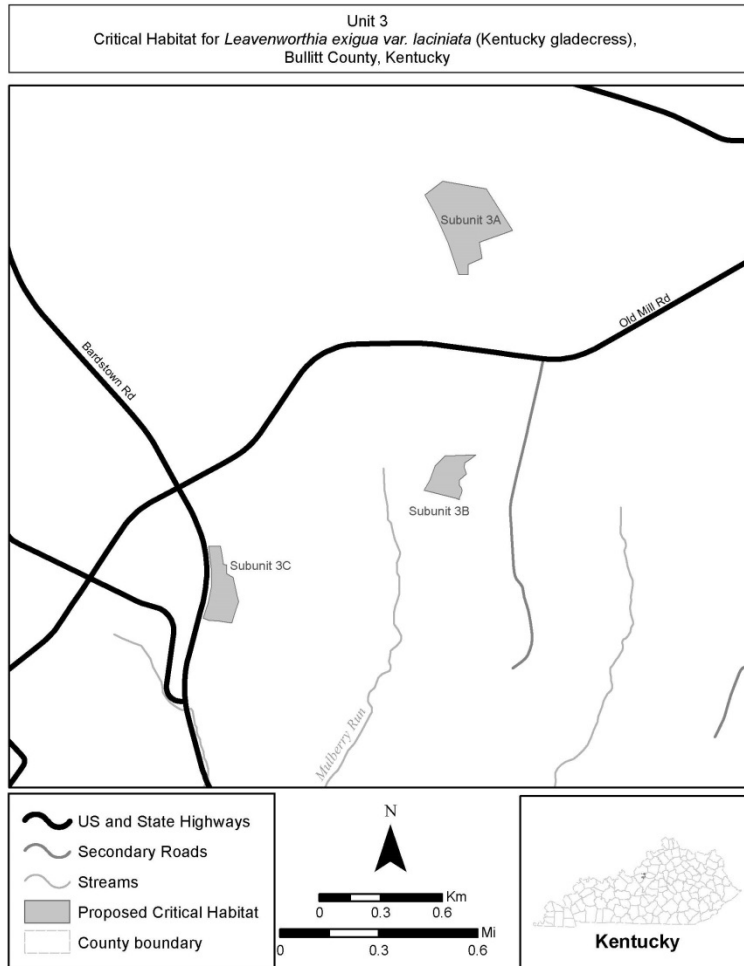
(ii) Map of Unit 2 follows:



(8) Unit 3: Mount Washington, Bullitt County, Kentucky.

(i) Unit 3 contains 42 ac (17 ha): Subunit A contains 25 ac (10 ha); subunit B contains 7 ac (3 ha); and subunit C contains 10 ac (4 ha).

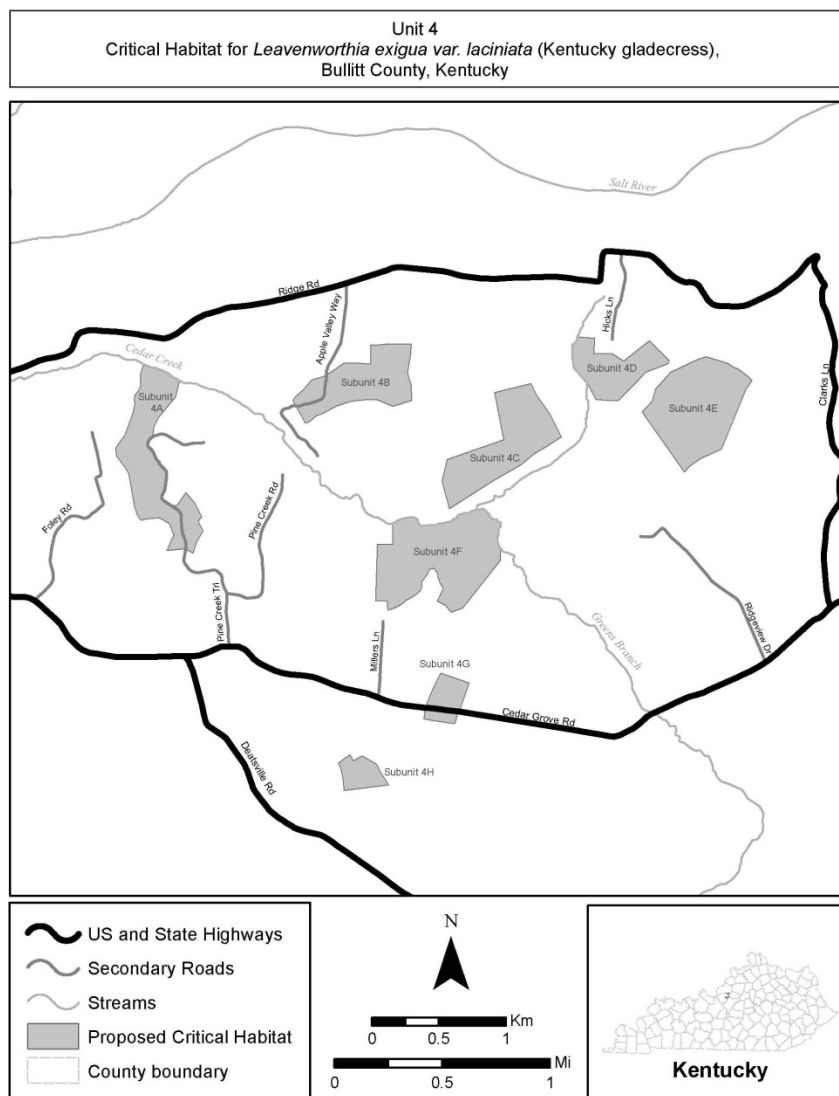
(ii) Map of Unit 3 follows:



(9) Unit 4: Cedar Creek, Bullitt County, Kentucky.

(i) Unit 4 contains 547 ac (221 ha): Subunit A contains 91 ac (37 ha); subunit B contains 69 ac (28 ha); subunit C contains 83 ac (34 ha); subunit D contains 46 ac (19 ha); subunit E contains 102 ac (41 ha); subunit F contains 120 ac (49 ha); subunit G contains 20 ac (8 ha); and subunit H contains 16 ac (6 ha).

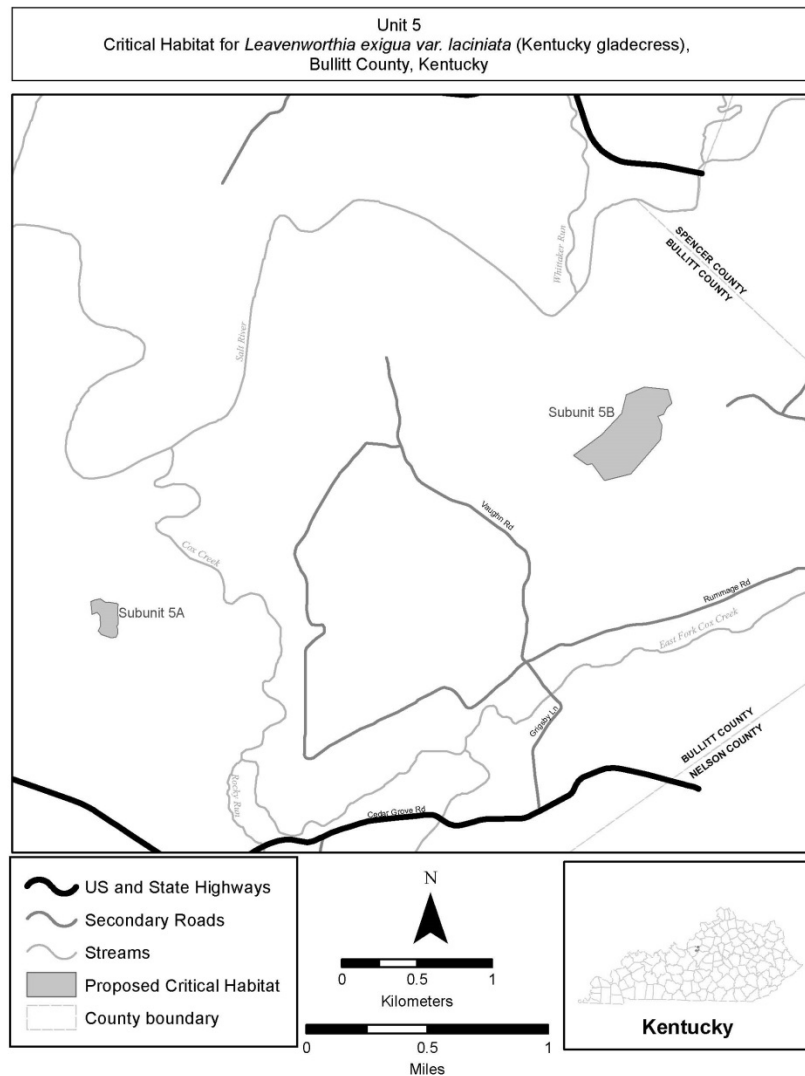
(ii) Map of Unit 4 follows:



(10) Unit 5: Cox Creek, Bullitt County, Kentucky.

(i) Subunit 5 contains 58 ac (23 ha): Subunit A contains 8 ac (3 ha), and subunit B contains 50 ac (20 ha).

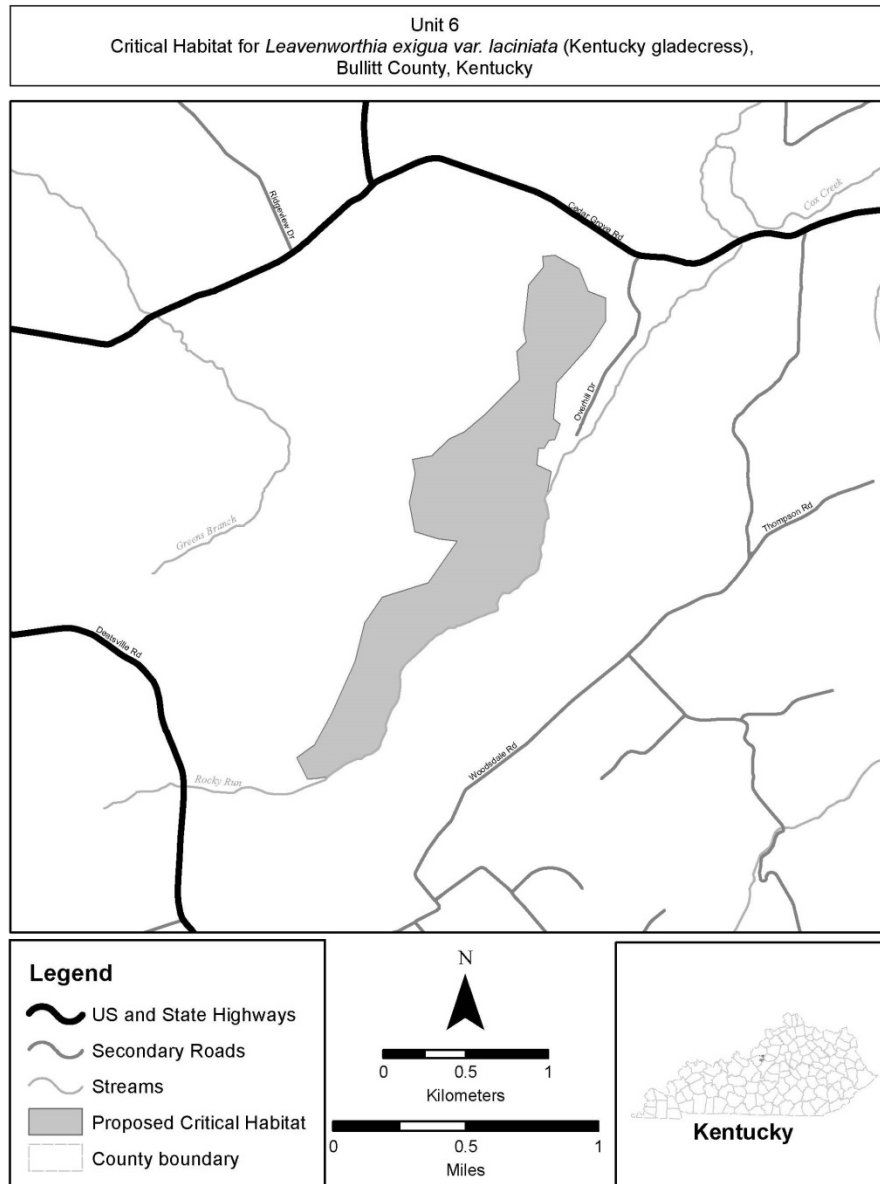
(ii) Map of Unit 5 follows:



(11) Unit 6: Rocky Run, Bullitt County, Kentucky.

(i) Unit 6 contains 374 ac (151 ha).

(ii) Map of Unit 6 follows:



\* \* \* \* \*

**Dated: April 24, 2014.**

Rachel Jacobson,

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

Billing Code 4310-55-P

[FR Doc. 2014-10050 Filed 05/05/2014 at 8:45 am; Publication Date: 05/06/2014]